



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I

DATE: March 20, 2013

SUBJ: Site Investigation Closure Memorandum
New Hampshire Dioxane Site
Emery and Belknap Drive
Atkinson, New Hampshire

FROM: John McKeown, On-Scene Coordinator [Signature]
Emergency Response and Removal Section I, EPRB, OSRR

THRU: David McIntyre, Chief *DMC*
Emergency Response and Removal Section I, EPRB, OSRR

TO: New Hampshire Dioxane Site File

In accordance with section 300.410 of the National Contingency Plan (NCP), a Removal Site Evaluation, consisting of a Preliminary Assessment and Site Investigation (PA/SI), has been undertaken at the Former Chapman Valve Site ("Site") in Indian Orchard, Massachusetts. The findings of the Removal Site Evaluation have been evaluated under the criteria set forth in section 300.415 of the NCP, section 104(a) and (b) of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), 42 U.S.C. § 9604(a) and (b) and Clean Water Act (CWA) § 311(c)(i) as amended by the Oil Pollution Act (OPA) § 4201(a). The Removal Site Evaluation has led to the determination that a Removal Action is appropriate at this time.

The findings of the Removal Site Evaluation are outlined below.

1. Source and nature of the release or threat of release.
 - a. The Removal Site Evaluation consisted of the following actions:
 - i. Review of NHDES sampling analysis of private wells located along Emery Drive, Belknap Drive, Brookside Terrace, Oak Ridge Drive, Deer Run Road, West Side Drive, Stonewall Terrace and Island Pond Road. NHDES has sampled for 1,4 Dioxane in this area since November 2011.
 - ii. Multiple interviews and discussions with representatives of NHDES,

NHDPH, Town of Atkinson, Hampstead Area Water Company (HAWC), Weston Solutions, and ATSDR. EPA also attended one public meeting hosted by Atkinson NH on 3 May 3012.

iii. Weston Solutions, "Evaluation of Mitigation Options for NH Dioxane Contamination Site (Document Control Number R7154)" 25 July 2012, prepared under Contract EP-W-05-042 TO 0008.

iv. EPA Region 1 Removal Preliminary Assessment for New Hampshire Dioxane Contamination Site (START Contractor Weston Solutions), 15 August 2012.

- b. Based on the information available at this time, the principal hazardous substances or pollutants or contaminants that are being released or for which there is threat of release include but are not necessarily limited to the list below.

Hazardous Substances or
Pollutants or Contaminants

Media

1,4- Dioxane

Groundwater, Private Wells

2. Evaluation of the threat to public health, welfare and the environment

- a. Federal Agency for Toxic Substances and Disease Registry (through cooperative agreement with New Hampshire Department of Public Health):

Threat x No Threat Evaluation Not Necessary

- b. Endangerment to the ecosystem:

Threat No Threat Evaluation Not Necessary x

3. The Removal Site Evaluation was terminated pursuant to section 300.410(f) of the NCP for the following reason(s).

() There is no release.

() The source is neither a "vessel" nor a "facility" as defined in section

300.5 of the NCP.

- () The release involves neither a hazardous substance, nor a pollutant or contaminant that may present an imminent and substantial danger to public health or welfare of the United States.
 - () It is subject to the limitations on response specified in §300.400(b)(1) through (3). The release is
 - () of a naturally occurring substance in its unaltered form, or altered solely through naturally occurring processes or phenomena, from a location where it is naturally found.
 - () from products that are part of the structure of, and result in exposure within, residential buildings or businesses or community structures.
 - () into public or private drinking water supplies due to deterioration of the system through ordinary use.
 - () The amount, quantity, or concentration released does not warrant a Federal response.
 - () A party responsible for the release, or any other person, is providing appropriate response, and on-scene monitoring by EPA is not required.
 - (x) The Removal Site Evaluation is complete.
4. As reflected in Section 3, above, the Removal Site Evaluation was terminated due to its completion, and not for other reasons.
- a. The factors listed below, found in Section 300.415(b)(2) of the NCP, are applicable to this Site.
 - () Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants.
 - (x) Actual or potential contamination of drinking water supplies or sensitive ecosystems.
- Hazardous substances or pollutants or contaminants in drums, barrels,

- () tanks, or other bulk storage containers, that may pose a threat of release.
 - () High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate.
 - () Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released.
 - () Threat of fire or explosion.
 - (x) The availability of other appropriate Federal or State response mechanisms to respond to the release.
 - () Other situations or factors that may pose threats to public health or welfare of the United States or the environment.
- b. The existence of the conditions specified in Section 4.a., above, indicate that a Removal Action under section 300.415 of the NCP is necessary.

The New Hampshire Dioxane Contamination Site (the Site) is located along Emery Drive, Belknap Drive, Brookside Terrace, Oak Ridge Drive, Deer Run Road, West Side Drive and Island Pond Road in Atkinson, Rockingham County, New Hampshire. The Site is located less than five miles north of the Massachusetts state line.

In October 2002, NH DES received drinking water analytical results from a residential well sample that indicated volatile organic compounds (VOCs) above NH DES's Ambient Groundwater Quality Standards (AGQS). The VOCs that exceeded the AGQS included methyl tert-butyl ether (MTBE) and 1,1-dichloroethane (1,1-DCA). In 2003, NH DES identified three additional impacted wells in the area and installed point of entry (POE) treatment systems at four residences. NH DES continues to maintain the POEs at these residences.

During November/December 2011, NH DES sampled all residences with the POE systems (post treatment) and analyzed the samples for 1,4-Dioxane. NH DES conducted this additional analysis because 1,4-Dioxane is considered to be an "emerging contaminant" requiring separate analysis. All four systems had levels exceeding the NH DES AGQS of 3 ug/l for 1,4-Dioxane.

In December 2011, NH DES started analyzing a larger geographic area because of

the results obtained from the four wells with the POE systems. The NH Public Health Laboratory analyzed the samples for VOCs and 1,4-Dioxane. As of August 2012, 15 residential wells exceeded the NH DES's AGQS for 1,4-Dioxane and an additional 24 residential wells had detectable levels.

In March of 2012, NH DES requested EPA assistance to review the Site, complete an evaluation of mitigation options, and provide assistance as needed.

- c. In light of the magnitude of the threat or potential threat to health, welfare, or the environment, the appropriate categorization of a Removal Action at this Site is:

Emergency____ Time-Critical x Non Time-Critical____

5. As reflected in Section 3, above, the Removal Site Evaluation was terminated due to its completion, and not for other reasons.
- a. As found in section 300.410(e)(1) of the NCP, the OSC shall determine whether a release governed by CWA section 311(c)(1), as amended by OPA section 4201(a), has occurred.
- () There is a release, or potential threat of release, as governed by the CWA as amended by OPA.
- (x) There is not a release, or potential threat of release, as governed by the CWA as amended by OPA.
- b. The absence of the conditions specified in Section 5.a., above, indicate that an Oil Spill Response under Appendix E to Part 300 of the NCP **is not** necessary.
- cc: Michael Barry, Chief, Emergency Response and Removal Section I, OSRR (w/o attachments)
Meghan Cassidy, Chief, Technical Support & Site Assessment Section, OSRR (w/o attachments)
John Regan, New Hampshire DES (with enclosures)

Encl: PA Report

